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BY THE COMPTROLLER GENERAL

Report To The Honorable John A. Durkin United States Senate

OF THE UNITED STATES

COMPLETED ORIGINAL

Non-Federal Development Of Hydroelectric Resources At Federal Dams--Need To Establish A Clear Federal Policy

Senator John Durkin of New Hampshire requested GAO to: (1) determine whether a Federal policy exists which allows non-Federal developers to develop hydroelectric resources at Federal dams and (2) identify examples of non-Federal interests being discouraged from developing hydroelectric power at Federal sites.

GAO found no consistent Federal policy concerning non-Federal development of hydropower at Federal dams. We also identified several non-Federal developers who were discouraged from developing hydropower at Federal dams.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

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The Honorable John A. Durkin
United States Senate

Dear Senator Durkin:

Your recent letter requested that we (1) determine whether a Federal policy exists which allows non-Federal developers to develop hydroelectric resources at Federal dams and (2) identify examples of non-Federal interests being discouraged from developing hydroelectric power at Federal sites.

We found no consistent policy concerning the development of hydropower by non-Federal developers at Federal dams. The Department of the Army's Corps of Engineers and the Department of the Interior's Water and Power Resources Service comment on non-Federal applications for hydropower development at their dam sites on a case-by-case basis. Non-Federal developers have experienced mixed reactions from the Corps and the Service when requesting information in order to prepare a preliminary permit--some projects have not been opposed by the two agencies while others have encountered opposition.

Legal questions or the fact that the Corps and the Service are either studying or planning to study a project has hindered non-Federal hydropower development at Federal dams. At present, the Corps, the Service, and the Department of Energy have endorsed legislation proposed by the administration (H.R. 6042 and S. 1641) that would give the Secretaries of the Interior and the Army wide discretion in modifying dams for power.

According to the water resource agencies, non-Federal developers, and engineering consulting firms, the non-Federal sector can develop hydroelectric resources quicker than the Federal Government. Non-Federal developers estimate they can bring a project on line in about 5 years, compared to 8 to 10 years for the Federal sector.

SCOPE AND METHODOLOGY

In order to be timely in responding to your needs, we limited our work to those areas of the United States identified as having the greatest hydroelectric potential at Federal sites--the Pacific Northwest and South Central States. We also looked at New England, an area where a great deal of

attention has been focused on developing hydropower at existing dams. We discussed the Federal policy for non-Federal development of hydroelectric resources with headquarters officials of the Corps of Engineers, the Water and Power Resources Service (formerly the Bureau of Reclamation), the Department of Energy's (DOE's) Federal Energy Regulatory Commission (FERC), and the Department of Agriculture's Rural Electrification Administration (REA). We also discussed this subject with officials involved in DOE's Small Scale Hydroelectric Resources Program, and with regional officials of the Corps of Engineers and the Water and Power Resources Service, and we analyzed pertinent agency documentation.

Other Federal agencies have built dams which may have hydropower potential. 1/ However, we excluded these agencies from our study since most of the controversy concerning non-Federal power development at Federal dam sites focused on the Corps and the Service.

To determine if there are any examples of non-Federal developers being discouraged from developing hydroelectric resources at Federal facilities we discussed this matter with officials of municipal utilities, rural cooperatives, irrigation districts, investor-owned utilities, and consulting-engineering firms. Using information that FERC supplied us, we contacted non-Federal developers who were in the process of studying the feasibility of installing hydropower at either Corps or Water and Power Resources Service dams. We selected non-Federal developers on the basis of (1) location (we wanted national representation), (2) size of project (we wanted both large and small projects), and (3) documentation gathered at FERC which might indicate a problem the developer had in dealing with either the Corps or the Service.

BACKGROUND

The United States, in the face of continuous increases in the price of imported oil, is moving toward the development of renewable resources. One such renewable resource for which technology is now available is hydropower. Our recent report 2/ on hydropower has shown its potential for additional development throughout the United States.

1/Tennessee Valley Authority, International Boundary and Water Commission, Bureau of Indian Affairs, and National Park Service.

2/"Hydropower--An Energy Source Whose Time Has Come Again," EMD-80-30, Jan. 11, 1980.

Studies indicate that hydropower potential, particularly at existing dam sites, can save the country hundreds of thousands of barrels of oil equivalent per day. Some of the best potential sites in the United States are located at Federal water resource projects. The Corps has estimated there is potential for developing approximately 15,000 megawatts (MWs) of additional capacity at Federal projects. 1/ Of this total, 430 MWs or 3 percent is authorized by law to be developed by the water resource agencies.

The Federal water resource agencies may be authorized by law to plan, design, and build dams for multipurposes such as flood control, navigation, recreation, irrigation, and hydropower. If hydropower is designated as an authorized project purpose, Federal development takes precedence over non-Federal development. If, however, hydropower is not an authorized project purpose the non-Federal sector has as much right to propose development of the power as the Federal agency. The majority of dams--85 percent of Corps dams and 91 percent of Service dams, for example--were built without hydropower as an authorized purpose. This was due to hydropower's economic unattractiveness in relation to cheap oil and other supply scurces during the decades of the 1940s, 1950s, and 1960s when most of the Federal dams were built.

At present, the administration's Rural Energy Initiative (REI) Program is set up to stimulate non-Federal development of small hydropower at existing dam sites in rural America. Through an interagency agreement, various Federal agencies are involved in the REI Program--DOE and REA provide grants, loans and loan guarantees, the Corps and the Service provide technical assistance to the financing agencies. Our recent letter report points out the REI Program has not accelerated small hydropower development, and may, in fact, impede it. 2/

A CONSISTENT FEDERAL POLICY TO ALLOW NON-FEDERAL DEVELOPMENT OF HYDROELECTRIC RESOURCES AT FEDERAL DAMS IS LACKING

Expeditious development of hydroelectric resources at Federal dam sites can be accomplished by a consistent Federal policy allowing for both non-Federal and public sector

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1/One megawatt equals 1,000 kilowatts (kWs).

2/"The Rural Energy Initiative Program for Small Hydropower--Is It Working?" EMD-80-66, Apr. 1, 1980.

development. We found the lack of such a consistent policy to be an impediment to non-Federal development of hydropower resources at Federal projects. The Federal policy in place is fragmented and oftentimes conflicting and inconsistent.

Water and Power Resources Service

Interior, prior to January 1980, did not have a formal policy for non-Federal power development at the Services' dams. On January 30, 1980, the Secretary of the Interior signed an issue paper making it Service policy that non-Federal applications would be decided on a case-by-case basis. The Service believes this approach is necessary because (1) each project is constructed and operated in accordance with a separate public law and (2) delivery of various multipurpose water supplies and other project benefits are accomplished as required by legally constituted repayment contracts between the Service and the project beneficiaries.

The criteria which are used to analyze the merits of non-Federal development at the Services' projects follow.

--If the agencies need power to operate their own facilities or to meet existing contractual commitments for power, then the Federal Government should develop the power.

--Except for special circumstances, the existing operator of the facility would be the appropriate powerplant operator. This option would allow development preference to the present operator (Federal or non-Federal) unless there are overriding reasons such as the safety or the integrity of a major Federal facility involved that will require Federal design and construction control.

--Where a non-Federal entity proposes construction, consideration will be given to the budgetary impacts if the same project were to be proposed for Federal construction and also to the time involved in bringing the project on line under alternatives of Federal versus non-Federal construction.

--If a specific powerplant study has been authorized and funded by the Congress, then a non-Federal permit should be opposed until the study is completed. The decision on who should undertake development will be based on the preceding criteria.

--Smaller powerplants that could be built with no interference with physical or operational integrity of project works could be developed non-federally.

Water and Power Resources Service officials told us, however, that detailed instructions on how to implement this policy were still being developed for field staff to use in judging the merits of non-Federal projects.

In applying this policy, Service officials told us there are other important factors which enter into their decision as to whether non-Federal development should be allowed. For example, allocation of cost to power for repayment purposes is unclear. The Reclamation Project Act of 1939 authorizes non-Federal power development using the Services' sites. However, repayment of joint use costs which can be allocated to power must be repaid, as well as operation and maintenance costs allocated to power.

In addition, possible conflicts could arise in the operation of the facility between meeting the dam's original purposes--flood control, irrigation, recreation--and the generation of power. According to Service policy the mechanism for resolving any such conflicts would be included in the operating license or would have to be resolved through a memorandum of understanding between the Service and the non-Federal developer.

The Service has had very little experience in implementing its policy thus far. Only one non-Federal developer is generating power at a Service facility requiring a FERC license. Currently, seven non-Federal developers have been awarded preliminary permits or licenses while four have applications pending before FERC for preliminary permits to study the feasibility of hydropower development at the Services' sites.

Corps of Engineers

The Corps policy set forth in a September 20, 1979, letter is similar to that of the Service in that a case-by-case approach is taken in considering non-Federal development at Corps dams. The Corps did not have a formal policy for non-Federal development of their dams prior to this time. The Corps recognizes that the Federal Power Act gives FERC the authority to decide whether or not to permit and license non-Federal development at Corps dams and does not oppose non-Federal development unless (1) such development would not be consistent with the authorized project purposes or (2) the Corps is studying or planning to study the addition of hydropower at a site.

The Corps does, however, set out numerous criteria that have to be met before it will support non-Federal development at one of its dams.

--Non-Federal development of a Corps dam must consider the total power potential of the dam. Total power does not have to be installed initially, but provisions to do so must be made clear.

--Hydroelectric power development must be compatible with authorized purposes of the Federal project.

--Design, construction, and operation of all power facilities that will be an integral part of the dam or that would affect the structural integrity of the dam must be approved by the Corps.

--In the interest of multiple-purpose water management, the Corps may require a signed memorandum of understanding between the prospective licensee and the Corps specifying the operational procedures and power rule curves consistent with overall project management objectives.

--The Federal Government must be reimbursed for the use of lands and facilities, and for an appropriate part of the cost of the existing Federal project by which the head 1/ created at the Federal project makes the installation of power possible.

--Power must be furnished free of cost to the United States for operation and maintenance of the project facilities in the vicinity of the project.

--In compliance with section 404 of the Clean Water Act, a Department of the Army permit is required for any discharge of dredged or fill material, including activities associated with hydropower development, into the waters of the United States. Such a permit will require a full public interest review of the applicant's proposal by the Corps.

Federal Energy Regulatory Commission

FERC is the agency responsible for issuing preliminary permits and licenses for non-Federal entities to develop hydropower at Federal facilities. A non-Federal developer may initially apply for and receive a FERC preliminary permit which gives the developer an exclusive right to study the feasibility of installing hydropower at a dam. FERC will grant a preliminary permit to a non-Federal developer to study a Federal dam unless (1) hydropower is an authorized project purpose or (2) a Federal study on a dam is nearly completed. FERC believes that awaiting completion

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1/The head is the difference of elevation between the headwater and the tailwater surfaces at a hydroelectric powerplant.

of Federal studies and congressional action on Federal dam sites before issuing a permit to a non-Federal developer could interfere with the most appropriate and expeditious development of water power resources.

In reviewing an application for a license, FERC considers the question of whether the development should be undertaken by the Federal Government rather than the non-Federal sector. FERC's granting of a license to a non-Federal developer is based on the premise that non-Federal hydroelectric development will be most adaptable to a comprehensive plan for improving or developing the waterway. Before issuing a license for non-Federal hydropower development, FERC

--receives and incorporates into license stipulations appropriate comments from the Federal water resource agencies and

--determines the fees that the non-Federal developer will have to pay the United States for the costs of the existing Federal project which makes the installation of hydropower possible.

Department of Energy/
Rural Electrification Administration

Both the Department of Energy (DOE) and the Rural Electrification Administration (REA) are involved in non-Federal development of hydropower at Federal dams through the administration's REI Program.

If FERC issues a non-Federal developer a preliminary permit to study the feasibility of developing power at a Federal dam, then DOE can grant the non-Federal developer a forgivable loan or grant to conduct the feasibility study provided the dam's capacity does not exceed 30 MWs. In the case of rural cooperatives wanting to develop at Federal sites, REA takes the position that a feasibility loan will be granted when a FERC preliminary permit is obtained and a construction loan can be obtained when a FERC license is granted for the site.

NON-FEDERAL DEVELOPERS HAVE HAD MIXED EXPERIENCES IN DEALING WITH FEDERAL WATER RESOURCE AGENCIES

We contacted several non-Federal developers interested in developing power at Federal projects. They gave mixed evaluations of the cooperation developers had received from the water resource agencies. Some developers and the engineering

consulting firms hired to do feasibility studies found the water resource agencies cooperative in providing information, but others did not. It was pointed out that in many cases the developers were only at the initial stages of development, and the agency was obligated to provide this information by law. According to Corps officials, up until this time, it has not opposed any non-Federal requests for FERC preliminary permits.

Views differed as to why cooperation existed in some cases and not in others. Some of the developers believed the Corps would cooperate in the early talking stages, but when given the opportunity to comment officially on the sites' preliminary permit application they would become less cooperative. One engineering consulting firm official said that it was his experience that Corps' cooperation was a function of its desire to develop a particular project. The more the Corps would like to develop a site, the less cooperative it becomes, and vice-versa.

We found, in our review, several non-Federal developers who believe they have been discouraged from developing the power at Federal dam sites. These examples are discussed in appendix II.

NON-FEDERAL HYDROPOWER DEVELOPMENT COULD REDUCE FEDERAL OUTLAYS AND GET POWER ON LINE QUICKLY

Non-Federal development of hydropower resources at Federal dams would have an impact on the Federal budget because non-Federal sector funds would be used to develop the sites in lieu of Federal funds. This is an important consideration at the present time when attempts are being made to trim the Federal budget. According to information provided to us by the Corps and the Service, non-Federal developers, and engineering consulting firms, the non-Federal sector could get the power on line quicker than the Federal Government because the non-Federal developers have fewer policies and procedures to follow.

Non-Federal development would reduce Federal Government outlays

Several of the non-Federal developers we contacted pointed out the advantage of budgetary savings to the United States Government through non-Federal development. For example, the South Columbia Basin Irrigation District located in Pasco, Washington, plans to develop six projects at an estimated cost of $100 million. 1/ The cost of these projects would be

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1/Initial project capital costs were obtained through the issuance of revenue bonds by the District.

totally paid by the irrigation district through power revenues obtained from the sale of the projects' hydropower.

Solano Irrigation District in California wants to develop 10 MWs of capacity at the Monticello project at a cost of several millions of dollars. An official for the district told us that the district has the bonding authority necessary to build the project and a purchaser to buy the excess power. The non-Federal developers stated they plan to spend several millions of dollars to develop the hydropower at Federal sites, with little or no cost accruing to the Federal Government.

Non-Federal sector can get hydropower on line quicker

Corps and Service officials told us that the non-Federal sector can develop the power at Federal dam sites faster than the Federal water resource agencies for several reasons. First, the Federal sector must adhere to the Water Resources Council's principles and standards, which require a three-stage planning process--public involvement, interagency coordination, and environmental analyses--which could take 2 to 3 years to complete depending on the project's complexity and public support. Second, the water resource agencies follow a complex and time-consuming planning and design procedure for getting hydropower on line. A typical time frame is 2 years for an appraisal, 2 years for a feasibility study and 2 to 4 years for construction. Third, the Corps and the Service must get congressional authorization for development and appropriation of money to develop the power at a Federal site, which generally takes 2 years. Typically, it can take the Federal sector anywhere from 8 to 10 years to get power on line.

The Corps believes, however, that it can play an important role in expediting non-Federal development of hydropower at Federal dam sites. It is proposing a "turnkey" technical assistance method under which non-Federal developers would contract with the Corps for the planning and design and work. Once the project is completed it would be turned over to the non-Federal developer.

Legislation is also currently pending which would place many Federal hydroelectric projects on a "fast track." H.R. 6042 would authorize the Secretaries of the Interior and the Army to plan, design, construct, rehabilitate, operate, and maintain hydroelectric power facilities not specifically authorized by the Congress at existing projects under their

respective jurisdictions. Projects could be undertaken upon a finding by the Secretaries of its economic, financial, and environmental feasibility. Many non-Federal developers believe this legislation would preclude widespread development of hydropower by the non-Federal sector.

Although the FERC licensing process also involves planning, design review, public involvement, and environmental analyses, several non-Federal developers we contacted agreed with the Corps and the Service that non-Federal development of power resources at Federal dam sites is faster. For example, the Solano Irrigation District believes once it receives a FERC license for the Monticello Project it can have power on line within 2 years. South Columbia Basin Irrigation District wants to develop power at six of the Services' sites. A South Columbia official stated that if the Service would allow them to do so, the first site--Potholes East Canal (5 MWs)--could be on line by March 1981. The other five projects (100 MWs) could be on line by 1984. According to Service officials, it has not been responsible for any loss of time in getting these projects on line. Jasper-Newton Electric Cooperative wants to develop 10 MWs of peaking capacity at the Town Bluff Dam. The Jasper-Newton officials believe that if they receive a FERC license, the project would be on line in 2-1/2 to 3 years as opposed to the 10 years it could take the Corps.

Arkansas Electric Cooperative Inc., wants to develop power at nine Corps dams on the Arkansas River. The total capacity at these sites would be 218 MWs. Officials of Arkansas Electric Cooperative stated that assuming an expedited licensing process (1-1/2 years from filing for a preliminary permit to receiving a license) it would take about 5 years to have the projects fully operational.

The delays by Federal developing agencies in getting power on line was reiterated by several other developers and engineering consultants we contacted.

LEGAL QUESTIONS COULD BE A BARRIER TO NON-FEDERAL DEVELOPMENT OF HYDROPOWER PROJECTS AT FEDERAL SITES

During the course of our review, we found basic legal questions which could, in our opinion, seriously delay any non-Federal development of hydropower at Federal dam sites. Conflicts exist between FERC and the Secretary of the Interior with respect to (1) whether a FERC license grants a licensee a right-of-way to develop hydropower resources on public lands

or whether a Bureau of Land Management (BLM) right-of-way is also required, (2) who has the final authority to approve the engineering design of structures and facilities for power production at Federal sites, and (3) who has the authority to assess a water fee and a fee for the use of the Federal facility to generate power.

Access to lands

Department of the Interior position

Interior maintains that under the Federal Land Policy Management Act it has the authority to require a FERC licensee to obtain a right-of-way permit from BLM before the licensee can occupy the Federal land to construct power facilities. Section 501(a) of the Act authorizes Interior to grant a right-of-way on public lands for "systems for generation, transmission, and distribution of electric energy." This section further specifically provides that "the applicant shall also comply with all applicable requirements of the Federal Power Commission under the Federal Power Act of 1935." Interior believes that under the Federal Land Policy Management Act a FERC licensee must obtain a BLM right-of-way in addition to complying with all of FERC's licensing procedures.

FERC position

FERC asserts that it has exclusive jurisdiction in licensing water power projects, and that a FERC license authorizes the licensee to enter and occupy Federal lands for the purpose for which the license was issued. FERC cites as its authority section 4(e) of the Federal Power Act which authorizes FERC to issue licenses "for the purpose of constructing, operating, and maintaining (water projects) upon any part of the public lands * * * of the United States." In support of its claim of exclusive authority, FERC points to the fact that, historically, it has been vested with sole authority to issue licenses since the passage of the Federal Water Power Act in 1920 which was later incorporated as title I of the Federal Power Act. FERC has also cited Federal case law and legislative histories to support its position that the Congress wanted a single licensing procedure. FERC maintains that requiring FERC licensees to obtain a BLM right-of-way permit would establish a dual licensing procedure against the intent of the Congress.

Access to lands--an issue in the Monticello Project

The Solano Irrigation District wants to develop the Service's Monticello Dam for hydropower. A California State requirement for any hydropower development is a water power permit. The Service filed a protest to the district's water application claiming that the application should be dismissed unless the district enters into an agreement with the United States (BLM) allowing the district to occupy the land to construct the project. The FERC disagrees. It maintains a FERC license gives the licensee a right-of-way to public lands. The issue is currently unsettled.

Approval of engineering designs question

Department of the Interior views

Interior maintains that it has the final authority in approving the engineering design of all facilities used in power production at the Services' dams. The Service has stated that not allowing them to have final authority over design plans is inconsistent with section 4(e) of the Federal Power Act and the Secretary of the Interior's responsibilities under the Reclamation Act of 1902 to manage and protect reclamation project works. The Service believes that to ensure the integrity of the structure is maintained and the dams are operated for their intended purposes they should approve all engineering designs.

FERC position

FERC recognizes the Services' authority under section 4(e) of the Federal Power Act. However, FERC points out that under the terms of a license all design and construction work will be reviewed and approved by the regional Service Director. Additionally, FERC maintains that it reserves the right to resolve any disagreement between the licensee and the Service. In support of this position, FERC states that under sections 10(a) and 10(c) of the Act, FERC has the final authority over the design of project works authorized by a license.

Final design approval--an issue in the South Columbia Project

The South Columbia Irrigation District has proposed a small-hydro project at the Services' Potholes East Canal. The Service has objected to the project because it believes it and not FERC should have the final authority on the engineering design. FERC, in an "Order Granting Intervention and Denying Rehearing," dated May 28, 1980, stated by

citing case law that it has the final authority to approve designs.

Assessment of water fee question

Department of the Interior position

Interior states that under section 9(c) of the Reclamation Act of 1939 it has the right to assess a falling water fee to non-Federal developers interested in developing hydropower at the Services' dams. A falling water fee is a charge for the use of the facility which regulates the water that flows through the turbine, thus generating electricity. Interior believes this fee is separate from those fees already imposed for the recovery of the U.S. investment to build the dam for its intended purpose(s).

FERC position

FERC maintains that granting a FERC license to a non-Federal developer requires the licensee to pay all costs of adding power to a Federal dam. FERC cites section 10(e) of the Federal Power Act as requiring them to charge a reasonable annual charge for the use of Federal dams. It is FERC's position that it, not Interior, has the final authority to set what, if any, the annual fee will be.

Water fee--an issue in the South Columbia Project

The issue of who can assess a water fee has surfaced in connection with the South Columbia Project. The Service believes a fee should be charged for the use of the water and is now proceeding with a study to determine the legality of assessing a charge in addition to or separately from the FERC charge. FERC does not agree since it believes the district is already paying for the project and is operating the project for its authorized purpose--irrigation.

Need to clarify law is apparent

It appears the positions held by both FERC and Interior are reasonable under existing laws. However, as shown by the Monticello and South Columbia projects this conflict has created controversy between the FERC and the Service. If the matter is not resolved and is taken to the Federal courts it could delay all Service projects.

CONCLUSIONS AND RECOMMENDATIONS

There is no consistent Federal policy to foster non-Federal development of hydropower at Federal dam sites. The Corps of Engineers and the Water and Power Resources Service comment on non-Federal applications to develop hydropower at their facilities on a case-by-case basis. The Corps and the Service believe they should first have a chance to study the feasibility of installing hydropower at their dams and then recommend to the Congress either public or non-Federal development.

This policy, in effect, gives the water resource agencies wide discretionary powers in recommending which projects should be non-federally developed, and which federally. In contrast to the Service and Corps policy, FERC will grant a preliminary permit to a non-Federal developer to study the feasibility of installing power at a Federal site unless (1) hydropower is an authorized project purpose or (2) a Federal study on a dam is nearly completed. Likewise, DOE and REA will provide grants and loans to non-Federal developers when they secure a FERC permit or license.

In contacting several non-Federal developers interested in developing power at Federal projects, we found mixed reactions about the cooperation they received from the Service and the Corps. While some developers did not encounter resistance from the water resource agencies, others did.

There was agreement among the public and non-Federal parties we talked to that the non-Federal sector can get hydropower on line faster than the public sector, and without major outlays by the Federal Government. This is an important consideration when our Nation is faced with short energy supplies and a tight Federal budget.

At present, there are unresolved legal questions which have the potential to become serious barriers to non-Federal development of power at Federal sites. These legal questions, if not resolved, could delay power development at Federal dams for a long time.

We therefore recommend that since non-Federal development is quicker and would not entail large Federal outlays, the Secretaries of the Army and the Interior direct the Corps and the Service, respectively, to encourage non-Federal development of hydropower at their facilities by fully cooperating with non-Federal developers and the Chairman, FERC. Preliminary permits should be issued to non-Federal developers interested in Federal

dams in all cases where power is not an authorized project purpose. In accordance with its authority under the Federal Power Act, FERC would decide whether a license be granted to a non-Federal developer.

We also recommend that for those dams where power is an authorized purpose, the Secretaries of the Army and the Interior direct the Corps and the Service, respectively, to conduct design studies within a period of time (2-3 years) and recommend to the Congress whether power should be installed. In cases where the Congress decides against Federal development, the non-Federal sector should be given the opportunity to develop the sites.

We also recommend that the Secretary of the Interior and the Chairman, FERC, develop within 6 months a memorandum of understanding on who has final authority to (1) grant a right-of-way permit to develop hydropower on public lands, (2) approve engineering plans, and (3) assess a water fee and a fee for the use of Federal facilities. We further recommend that if an agreement cannot be reached by the Secretary and the Chairman that the Congress amend the Federal Power Act and the Federal Land Policy Management Act to clarify its intent concerning which agency has the responsibility for the above items.

The Departments of the Interior, Energy, Defense, and Army, as well as the Federal Energy Regulatory Commission, were given the opportunity to provide written/oral comments on a draft of this report. A discussion of their comments and our evaluation is in appendix I.

Copies are being sent to the Secretaries of Defense, Army, Energy, and Interior; the Chairman, Federal Energy Regulatory Commission; and the House and Senate Committees having oversight responsibilities for the matters discussed in the report.

Sincerely yours,

Comptroller General
of the United States

AGENCY COMMENTS AND OUR EVALUATION

Copies of a draft of this report were furnished to the Departments of the Interior, Energy, Defense, and the Army; and Federal Energy Regulatory Commission for their comments. Due to the report's short time frame, written or oral comments were requested within five working days. The Department of Defense has not provided us with any comments. The other departments and agencies responded orally to the draft report. The report was revised in several sections to reflect technical comments.

The following sections summarize the overall comments and present our views on these matters.

Department of the Army

The Corps of Engineers did not object to the draft report's recommendations. The Corps felt that its policy towards non-Federal development at Corps sites should be distinguished from the Service policy. The Corps emphasized the fact that it is their official policy not to object to a non-Federal request for a FERC preliminary permit at Corps' dam sites.

We recognize that the Corps has a different policy than the Service with respect to non-Federal hydropower development at Corps' dams. However, we found both policies to be inconsistent and have led to cases where non-Federal developers have been discouraged from developing hydropower at Federal dams. We acknowledge in the report that it is Corps' policy not to object to a non-Federal request for a FERC preliminary permit at Corps' dams.

Department of the Interior

The Department of the Interior stated that the draft report presents a concise description of the problems and concerns of non-Federal hydropower development at Federal facilities. The Department of the Interior agreed with our recommmendation for a rapid resolution of the legal questions over whether Interior or FERC has final authority to (1) grant a right-of-way permit to develop hydropower resources on public lands, (2) approve engineering plans, and (3) assess a fee for water use and

use of the Federal facilities. But, it disagreed with our recommendation to issue preliminary permits to non-Federal developers in all cases where power is not an authorized purpose. Interior stated that in many cases non-Federal development may not be in the best interest of the public because of overriding operational, safety, or environmental considerations peculiar to a certain facility. These considerations may indicate Federal development would be the best alternative.

We recognize that Federal development of some dams may be preferable to non-Federal development. Our recommendations do not preclude Federal development. The overriding concerns expressed by Interior officials would be considered by FERC in making a determination to issue a FERC license.

Department of Energy

The Department of Energy stated that the draft report should be revised to present a more balanced view of the Federal versus non-Federal development issue, and to reflect the administration's efforts to accelerate hydropower development--both Federal and non-Federal, and large scale as well as small scale.

DOE further stated that the letter report reflects an anti-Federal development bias, because it stresses the lengthy time it takes to construct a Federal project, but it does not cover the administration's efforts to reduce this time. Further, it does not discuss the compensating multiple advantages of having Federal agencies construct generating facilities at their existing structures.

In our report we recognized the administration's efforts to accelerate hydropower development (H.R. 6042, S. 1641, DOE's Small Hydropower Program, and the REI Program). However, we do not believe these efforts have attained the goal of rapidly fostering hydropower development. As pointed out previously, we do not agree that our recommendations preclude Federal hydropower development.

Federal Energy Regulatory Commission

FERC stated that the draft report accurately described the situation of Federal vs. non-Federal development of power at Federal facilities. But, FERC made the

point that under the Federal Power Act it has the final authority to (1) grant a right-of-way permit to develop hydropower on public lands, (2) approve engineering plans, and (3) assess a fee for use of Federal facilities and water.

The FERC believes it has final authority with respect to these legal issues. We do not know who, Interior or FERC, has the final authority. This dispute has caused problems and we believe the issues should be resolved.

NON-FEDERAL DEVELOPERS BEING DISCOURAGED FROM DEVELOPING AT CORPS AND SERVICE DAM SITES

SOLANO IRRIGATION DISTRICT

In 1975, the Solano Irrigation District located in Solano County, California suggested to the Service that hydropower development at the Monticello project was a feasible undertaking. The district, a major user of the project, determined at the time that between 55 million and 65 million-kilowatt hours (kWh) per year of energy could be generated at the site. 1/ In October 1976, the district filed a preliminary permit with FERC to study the feasibility of developing power at the project because, up until this point, the Service had not attempted to evaluate Monticello's power potential.

In 1977 the district supported an attempt by the Service to develop the power resources at the Monticello Dam, because it believed the Service could get the power on line faster than the district. Legislation was introduced, H.R. 3919, which would authorize the Service to develop the power. But with instructions from the Secretary of the Interior, the Commissioner of the Service opposed the bill before the Subcommittee on Water and Power Resources, Committee on Interior and Insular Affairs on the grounds that it was uncertain as to the project's feasibility, although the district had recently completed a study on Monticello and found it feasible. In addition, the Service stated that due to budgetary reasons, it was reassessing its budgetary situation as it related to water resource projects. The district suggested to the Subcommittee that it would finance and construct the project. The subcommittee members encouraged the district to do so and suggested that H.R. 3919 be rewritten to provide whatever authorization might be required to allow private construction. It was later determined that such authority could be granted by FERC under the Federal Power Act and the legislation was not pursued by the district.

In April 1979, a House bill (H.R. 3526) proposing that the Service construct the power at several Service sites, including Monticello, was introduced before the Subcommittee on Water

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1/One kWh is the amount of energy consumed, delivered, or generated over a period of 1 hour at the rate of 1 kW.

and Power. Because of the district's testimony as to its progress on a FERC license, the Subcommittee removed the Monticello project from the bill.

A Senate version of the bill, S. 1420, was amended by Senator Cranston of California, a co-author of the bill, to preserve the district's priority on the project. The amendment stated that at the sites where a FERC application has been filed, Service authorization should only occur in the event the district fails to obtain the license or financing within 18 months.

A Solano Irrigation District official said that the Service continues to block their efforts to develop the Monticello project. At the moment, the Service is an intervenor to the project's license. The official concluded by saying that the district has the bonding authority to build, a purchaser to buy the power, and it can get the power on line in 24 months; however, nothing can be done until a license is secured.

PACIFIC NORTHWEST GENERATING COMPANY

The Pacific Northwest Generating Company, organized in 1975, is a non-profit cooperative electric utility composed of 18 rural electric distribution systems in the Pacific Northwest region of the United States. All of the company's member systems are rural electric distribution cooperatives financed by the REA and wholesale customers of the Bonneville Power Administration (BPA). Several years ago BPA notified its customers of insufficient electric energy resources for meeting customers' total demands beyond July 1, 1983. After that date, Pacific Northwest will supply its member systems' loads above what the systems are able to obtain from BPA and the Washington Public Power Supply System's Nuclear Plants 4 and 5. For this reason, Pacific Northwest has undertaken a small hydroelectric development program that involves 16 projects--6 of which are Service dams--capable of producing approximately 80 MWs.

A Pacific Northwest Generating Company official told us that he met with Service officials in Boise, Idaho, to discuss his company's power development of the Service projects. Service officials told the company that their agency was conducting feasibility studies on four of the dam sites for power development, and the Service was considering feasibility studies on the other two projects. The Service officials made it clear that while they had a project under study it was not appropriate for a non-Federal entity to conduct a study. In addition, Pacific Northwest was led to believe that the Service could

initiate feasibility studies at their own discretion without having congressional authority. In effect, the Pacific Northwest official said the Service could prevent non-Federal power development by merely initiating a feasibility study.

JASPER-NEWTON

In 1975 Jasper-Newton, a rural electric cooperative, located in Kirbyville, Texas, became interested in developing the hydropower at the Corps of Engineers' Town Bluff dam located on the Neches River. At the time, two Jasper-Newton officials met with Corps' officials to inquire about the Corps' intentions of possibly initiating a study of Town Bluff Dam and installing generators there. The Corps officials responded by stating that the current basinwide study of the Neches River and tributaries was currently inactive and that the most recent funding of $10,000 was allocated to the Galveston District for salt water barrier investigations. In other words, at the time, no money was available to make further studies.

In October 1979, Jasper-Newton entered into an agreement with a consulting engineering firm to make a preliminary evaluation of the possibilities of installing hydropower at Town Bluff Dam. The preliminary feasibility study of the project showed a possibility for 10 MWs of installed capacity. Upon receiving the favorable preliminary feasibility study, Jasper-Newton applied to FERC for a preliminary permit on December 6, 1979, to make a full feasibility study of the project. If the project proved feasible, Jasper-Newton would apply to DOE under its small-scale hydropower program for a low interest loan to make the study.

On May 16, 1980, Jasper-Newton's request for a preliminary permit was rejected. The preliminary permit was rejected because the 1939 law which authorized the Corps to build the Town Bluff Dam designated hydropower as a project purpose. FERC will not consider an application for a preliminary permit on Federal dams that are authorized by law for Federal hydropower development. In January 1980, the Fort Worth, Texas, district office issued a "study initiation notice" of the Town Bluff Dam.

Officials of Jasper-Newton believe they should develop the project because due to the small generating capacity, the power will need to be integrated into a system which can properly use it. All Government power generated in this area must be marketed through the Southwestern Power Administration. However,

Southwestern Power, according to a Jasper-Newton official, has no facilities close to Town Bluff Dam to integrate the power into its system. To feasibly make the power available, Southwestern Power will need to build many miles of transmission lines or make arrangements with utilities in the area to have the power transmitted over the utilities' lines. The Jasper-Newton can effectively integrate the power into its system because of a contractual arrangement with another cooperative which owns transmissional lines within 3 miles of the project. Jasper-Newton officials told us the project can be on line within 2-1/2 to 3 years.

In order to win project approval, Jasper-Newton believes that the 1939 law authorizing power at Town Bluff Dam must be amended. With the aid of several members from the Texas congressional delegation, Jasper-Newton is working on legislation to de-authorize power from Town Bluff Dam.

ARKANSAS ELECTRIC COOPERATIVE, INC.

The Arkansas Electric Cooperative, Inc., is a holding company formed by the 18 rural electric cooperatives in the State of Arkansas. The Cooperative wants to develop the hydropower resources at nine Corps dams on the Arkansas River and make the river the Nation's model for the development of low-head hydroelectric resources. By acquiring model status the cooperative believes it can develop the project faster than under normal circumstances. The total project of nine dams has a capacity of 218 MWs and would serve the needs of rural residents.

The Cooperative has conducted preliminary feasibility studies on all the dams and has concluded that each is economically feasible. A preliminary permit application for all the dams has been filed with FERC. An official of the Cooperative stated that given an expedited licensing process (1-1/2 years from filing preliminary permit to license granting), it would take about 5 years to get the projects on line at a total cost of $500 million.

An official of the Cooperative stated that the COE's Dallas, Texas Division office was against the Cooperative's development of the nine dams because the Corps had plans to study the sites themselves. At present, the Cooperative is pursuing the development of the dams through the Government's REI Program.

VERMONT ELECTRIC COOPERATIVE

The Vermont Electric Cooperative is interested in developing hydropower at four Corps dams--two in Vermont and two in New Hampshire. The four dams would be used for "peaking" and have a combined capacity of about 6.5 MWs. The Cooperative is concentrating its efforts on the North Hartland Dam (4 MWs); the other three dams are in the very early stages of development.

Reluctance was expressed by Corps district officials when the Cooperative made it known it was interested in developing hydropower at these dams according to a Vermont Electric Cooperative official. The reluctance centered around (1) the status of the dams as they are flood control dams and nothing should be done to disturb this primary purpose and (2) what the water fee should be for use of the water. After much discussion with Corps officials, the Cooperative has now gained their cooperation in studying these facilities. According to officials of the Cooperative they have now gained help from the Corps because of overall directions sent to the field offices from Corps headquarters and because of local congressional interest. Even though there was Corps opposition to these projects in the beginning, cooperation is now such that the Cooperative is contracting with the Corps to do part of the feasibility study for the North Hartland Dam.

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